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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of : **MAIL STOP APPEAL BRIEF - PATENTS**  
Kei USUI : Confirmation No. 8785  
Serial No. 10/030,420 : Atty Docket No. 2001-1862A  
Filed January 10, 2002 : Group Art Unit 1753  
METHOD FOR WASHING FOODSTUFF WITH : Examiner Arun S. PHASGE  
ACTIVATED WATER

**PATENT OFFICE FEE TRANSMITTAL FORM**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Attached hereto is a check in the amount of \$170.00 to cover Patent Office fees relating to filing the following attached papers:

Appeal Brief ..... \$170.00


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Respectfully submitted,

Kei USUI

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ACCOUNT NO. 23-0975

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October 5, 2004

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In re application of : **Mail Stop Appeal Brief: Patents**  
Kei USUI : **Confirmation No. 8785**  
Serial No.10/030,420 : Docket No. 2001-1862A  
Filed January 10, 2002 : Group Art Unit 1753  
METHOD FOR WASHING FOODSTUFF : Examiner Arun S. PHASGE  
WITH ACTIVATED WATER

**APPELLANT'S BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an appeal from the final rejection dated April 6, 2004.

**i. REAL PARTY IN INTEREST.**

The real party in interest is Kei USUI, the present applicant.

**ii. RELATED APPEALS AND INTERFERENCES.**

There are no related appeals or interferences.

**iii. STATUS OF CLAIMS.**

The claims on appeal are 1 and 2.

Claims 1 and 3 have been rejected.

Claim 3 has been cancelled.

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**iv. STATUS OF AMENDMENTS.**

An after final Amendment was filed on July 6, 2004 and was entered per the Advisory Action dated July 23, 2004.

**v. SUMMARY OF THE CLAIMED SUBJECT MATTER.**

The invention as defined in independent claim 1, relates to a method for improving the quality of a foodstuff by subjecting the foodstuff to a washing treatment with activated water. Page 1, lines 5 to 19 of the specification.

The activated water is prepared by contacting water with an alloy having absorbed hydrogen (page 3, lines 5 to 14). The alloy having absorbed hydrogen gas is produced by contacting the alloy with hydrogen gas, whereby it absorbs such gas (page 5, lines 15 to 20).

When the water contacts the alloy containing absorbed hydrogen gas, the alloy releases the hydrogen to thereby activate the water (page 5, lines 15 to 22).

As pointed out on page 2, lines 4 to 11 of the present specification, a clear understanding of the mechanism for the “activation” of water by the present invention is not yet fully understood, however, the results in terms of improved food quality is clear, e.g., as set forth on page 3, lines 5 to 19 of the present specification and the comparative examples set forth on pages 9 to 16 of the present specification.

**vi. GROUND OF REJECTION TO BE REVIEWED ON APPEAL.**

The grounds of rejection to be reviewed on appeal are:

The propriety of the rejection of independent claim 1 under 35 U.S.C. 103(a) as being unpatentable over Reznik (U.S. 5,951,839) in view of Japanese Patent 09-001153 (Kawasaki); and

The rejection of dependent claim 2 on the same ground of rejection, i.e., Reznik in view of Kawasaki.

vii. **ARGUMENT.**

A. Rejection of claim 1 (Reznik in view of Kawasaki)

The rejection of claim 1 contends that Reznik discloses the claimed method while recognizing that the reference does not disclose the use of palladium as the source of hydrogen. The rejection further takes the position that this deficiency of Reznik can be remedied by the disclosure of Kawasaki, in which palladium is taught as the source of hydrogen.

(It should be pointed out that claim 1 does not require a palladium alloy but only claim 2).

Reznik discloses in the paragraph bridging columns 4 and 5, a method of storing produce which comprises subjecting the produce to several steps, including washing the produce using oxidizing water (column 5, line 9) and thereafter, rinsing the produce in reducing water.

Other steps are also employed.

It is not apparent how the quality of the resultant produce is improved.

Moreover, the reducing water is apparently produced by providing molecular hydrogen to the water from a suitable source such as a gas cylinder or an electrolysis device as disclosed in columns 6, lines 38 to 40.

No mention is made of an alloy having absorbed hydrogen thereon per present claim 1.

Nor is it at all clear that the activated water produced by contacting the alloy with absorbed hydrogen with water the same as water produced by the process of Reznik.

Reznik reports in column 17, lines 8 to 12 that experiments to study fungicidal, pesticidal and herbicidal effects of water composed of hydrogen of different specificity and characteristics are being undertaken. However, the results of these experiments are unknown.

In contrast, the present specification discloses that the present treatment actually provides a reduction in bacteria in various foodstuffs.

Turning to Kawasaki, the object of its method is treatment to preserve various drinks over a long period of time. See paragraph [0001] where examples are given of the drinks including beer, fruit or vegetable juices, tea, cow's milk and the like. Accordingly, the Kawasaki reference cannot be pertinent to the present invention, even as a secondary reference, since the present method involves subjecting foodstuffs to a washing treatment. No one could imagine the

washing the beer or the like of Kawasaki with water nor could a preservative method for drinks be relevant to improving the quality of foodstuffs by washing.

Secondly, the method of the present invention is an indirect or two-step treatment method for washing a foodstuff comprising a first step of activating water in a specific activation treatment and a second step of washing solid foodstuff with water activated in the first step. In contrast, in the method of Kawasaki, an electrode of an electroconductive body is directly put into the water-based liquid such as beer and an electric or ultrasonic energy is applied to this electrode while hydrogen gas is blown into the liquid, to thereby remove the dissolved oxygen in the liquid.

Kawasaki is silent on impregnation of the electrode with hydrogen gas, although perhaps if the electroconductive material forming the electrode were a hydrogen-absorbing metal or alloy, the electrode may absorb a small volume of hydrogen gas.

In any event, the method of Kawasaki is for direct removal of dissolved oxygen from a water-based liquid such as beer by blowing hydrogen gas into the liquid, while the presently claimed method does not include a step of blowing hydrogen gas into a liquid foodstuff for quality improvement.

It is difficult to imagine how one of ordinary skill in the art would combine the teachings of the Reznik primary reference with those of the Kawasaki reference for any reason, no less improving the quality of foodstuffs by washing with activated water which is prepared by hydrogen released from an alloy containing absorbed hydrogen, such as palladium.

It is only by reading the present specification that one could imagine improving the quality of any foodstuff by washing it with activated water produced in accordance with the present claims.

#### B. Rejection of claim 2 (Reznik in view of Kawasaki).

All of the above arguments against claim 1 are repeated for the rejection of claim 2, but in addition, Reznik makes no mention of employing the palladium alloy of claim 2.

While Kawasaki discloses palladium, among other metals, it does not do so in a context suggestive of the present invention, as discussed above in connection with claim 1.

For the foregoing reasons, it is apparent that both rejections on prior art are untenable and should be withdrawn.

**viii. CLAIMS APPENDIX.**

A copy of the claims on appeal is set forth in an Appendix viii immediately following the conclusion and signature.

**ix. Evidence Appendix**

None

**x. Related Proceeding Appendix**


None

This Brief is submitted with the requisite \$170.00 fee.

Respectfully submitted,

Kei USUI

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October 5, 2004

viii. **CLAIMS APPENDIX**

**Claim 1** A method for improving the quality of a foodstuff which comprises the step of subjecting the foodstuff to a washing treatment with activated water prepared by contacting water with an alloy having absorbed hydrogen which is produced by contacting an alloy with hydrogen gas, whereby said alloy bearing absorbed hydrogen releases hydrogen on contact with said water to activate said water.

**Claim 2** The method for improving the quality of a foodstuff as claimed in claim 1 in which the hydrogen-absorbing alloy is a palladium-based alloy.